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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/003,574

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Hannu Kuoksa

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02/13/2009

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EXAMINER

HENDRICKSON, STUART L

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/003,574	<b>Applicant(s)</b> KUOKSA, HANNU	
	<b>Examiner</b> Stuart Hendrickson	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-12, 14, 15 and 26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-12, 14, 15, 26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/6/08</u> .   | 6) <input type="checkbox"/> Other: _____                          |

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The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-6, 8-12, 14, 15 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baines 5822220 taken with Mosow 5213663, Hultman et al. 4311666, Engdahl 4762590, Bertelsen CA 1198558 and Puhakka article.

Baines teaches in columns 5 and 9 computer control of a causticization process. The computer can monitor any parameter characteristic of the system and send via feedback loop controls to other inputs to achieve a stable reaction system. The differences versus the claims is what variables are monitored. Musow teaches in columns 2 and 4 that each system can have a different variable measured, like titratable alkali or density. Hultman teaches the measurement of green density and control of white infeed- see col. 1 lines 20-25 and col. 10 lines 10-15. Concerning the addition of white liquor to the process, Engdahl teaches this in col. 3 and fig. 1. Bertelsen teaches on pgs. 15-17 measuring the TTA and conductivity, and indicates that any parameter can be measured, depending upon the system. Page 25 thereof teaches measuring the density of the green liquor, and provides a good summary of the teachings of the reference. Page 3 teaches recycling the white liquor to the green liquor for complete reaction. The Puhakka article teaches monitoring 'alkali strength' and TTA.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to control the infeeds as in Hultman and monitor the density or alkali in the process of Baines, using the methods of the supporting references, because doing so asserts control over the process for monitoring for optimum results. Adding white liquor is an obvious expedient to form the desired carbonate product. Note that in general, processes can be optimized (In re Boesch 205 USPQ 215). The workings of how the computer makes calculations (claims 8, 12, 14) are deemed conventional as to how computer control programs work- see Baines columns 8-9. Choosing coefficients which accurately model reality is an obvious expedient, to assure efficiency.

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Applicant's arguments filed 11/18/08 have been fully considered but they are not persuasive. Previous arguments and comments are incorporated herein by reference. It is not clear why it is argued that the references do not teach adding white liquor to green liquor, when the references are performing the claimed reaction. The new Puhakka article teaches the TTA model. Thus, all the pieces are taught and are combinable for the reasons above. Applicants need to clearly set forth actual differences, and not make boilerplate arguments, and clearly show how the references differ if in fact the process is not the same. Attacking each reference separately for things they are not relied upon to teach is not persuasive because some other reference teaches the part which is missing. The argument on 'pg. 7' that Musow does something different is not persuasive, since it has not been put into context of what exactly the claimed process is and how it differs. In other words, the feature argued is not being claimed. On page 8, it is argued (and underlined) that Hultman controls addition of CaO. Does applicant mean that the present process does not control this? And what claim language excludes this step of the reference? On pg. 9, applicant does not elucidate the difference between a digester and slaker. What claim language creates this difference? Why are they mutually exclusive concepts? On pg. 9, it is argued that the references do not control density, but it is urged that they indirectly do, since they control things which are directly related to density. So it amounts to essentially the same steps, differing only in what parameter is monitored by the computer. The arguments on pgs. 10-13 are drawn to this, but are not persuasive since the defacto control is the same, merely expressed in a different way. If you control X, and X dictates Z, then you control Z. Note also the new reference. The references are combinable, as they deal with essentially the same chemical system, and for the reasons already on the record. The thrust of the references is such that they clearly can be combined by one of ordinary skill, and many use computer models. The alleged unpredictability on pg. 17 is thus not understood. The examiner agrees with the argument on the bottom of pg. 17, and the fact that applicant has chosen an indirect (and thus seemingly less effective) measuring system does not make the process patentable because it is clear from the references that you can measure whatever you want to and tie it into the system.

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The new reference is noted, that is was obtained from a foreign office. The other documents (search report? Rejection?) from the other office are requested, to provide a context for this reference.

Any inquiry concerning this communication should be directed to examiner Hendrickson at telephone number (571) 272-1351.

/Stuart Hendrickson/  
examiner Art Unit 1793